

***Lipocrea epeiroides* (O. P. Cambridge, 1872) (ARANEAE: ARANEIDAE) A NEW RECORD FROM INDIA**

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ABSTRACT

The morphological characters of *Lipocrea epeiroides* (O. P. Cambridge, 1872) which is new record for the Indian araneo-fauna are given together with the distribution of the species on the world. This genus is probably mistaken as *Larinia* in India.

Key words: *Lipocrea epeiroides*, Araneidae, Central India, New record

INTRODUCTION

The genus *Lipocrea* was originally described by Thorell (1878) and includes 4 species: *L. diluta* Thorell, 1887 known from Myanmar to Australia; *L. fusiformis* (Thorell, 1877) known from Philippines, Sulawesi, India to Japan; *L. longissima* (Simon, 1881) known from Afrotropical region and *L. epeiroides* (O. P. Cambridge, 1872) so far known only from Israel and Yemen (Platnick, 2013). In the present paper, we are reporting the occurrence of the species *epeiroides* in India, a new addition to the species list for the Indian subcontinent and adding to the list of species. *Lipocrea epeiroides* was earlier recorded from Greece, Cyprus, Turkey, Israel and Yemen. We are describing the species based on both male and female specimens which are sampled during the study (2010 to 2013).

MATERIALS AND METHODS

Two male and four female spider specimens were collected by sweeping method. The identification was made using the descriptions of Levy (1986). Digital images were taken by MIPS of Olympus Microscope. All measurements in the text are in millimeters (mm). Measurements are taken from the ventral side of legs by using digimicroscope. The taxonomy follows Platnick (2013) and the terminology follows Levy (1986). The holotype and paratype specimens are deposited in the collection of the Arachnological Museum of Department of Zoology, SGB Amravati University, Amravati (India).

RESULTS AND DISCUSSION

Lipocrea epeiroides (O. P. Cambridge, 1872)

mf epeiroides (O.P.-Cambridge, 1872).....Greece, Cyprus, Turkey, Israel, Yemen

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Synonymy: *Argiope e.* O. P.-Cambridge, 1872a: 301 (Dmf).

Larinia e. Simon, 1895a: 768.

Larinia chloris Grasshoff, 1970b: 222 (S, rejected).

L. e. Levy, 1986: 7, f. 28-39 (Tmf from *Larinia*, removed from S).

L. e. Kunt et al., 2010: 71, f. 1-10 (m).

L. e. Wunderlich, 2011: 11, f. 4-5 (mf).

Material examined: 2 male and 4 female spider specimens of *Lipocrea epeiroides* were collected from Amravati (36°40'21.10"N; on cotton plant by sweeping method.

Description of female *Lipocrea epeiroides*:

Female: Total length 9.75 mm, cephalothorax 2.95 mm long, 1.95 mm wide, abdomen 6.54 mm long, 2.26 mm wide, sternum 1.21 mm long, 0.74 mm wide. Cephalothorax creamish yellow, oval in shape, covered with white hairs, with broad thoracic and narrow cephalic region, marked with midlongitudinal broad grayish black band interrupted medially, widened twice near posterior cephalic end and above the fovea. Fovea distinctly deep and longitudinal.

Eight eyes with AE row strongly recurved and PE row slightly procurved, AME larger than PME and widely separated than PME, PME very near to each other but not touching, encircled by black ring, LE situated on a prominent tubercle, close to each other, subequal in size, MOQ longer than wide, wider anteriorly than posteriorly, both long and short, delicate, directed forward, white hairs originates behind the eyes and between AME.

Sternum yellow with dark brown lateral sides, spear shaped covered with black setae except middle portion, V-shaped posteriorly, anteriorly with tubercles opposite coxae I and a small sclerotised tubercle opposing coxae III. Labium longer than wide, rebordered, brownish basally, pale apically, lateral margins of labium thickly sclerotised. Maxillae longer than wide, inner side adjacent to the labium pale provided with soft, dense scopulae, outer side yellowish, without tooth that present in male, maxillar surface with few long and short black setae. Chelicerae yellowish brown with swollen base provided with a prominent condyle, promargin with four teeth, second smallest and third one largest among all teeth, retromargin with three subequal teeth, surface of cheliceral furrow also provided with small tooth like processes, cheliceral furrow margins bears hairs which extend upto the base.

Legs long, slender, yellowish covered with white hairs, Femora I with one long and one short prolateral spine and with a ventral- retrolateral row of bristles with last bristle very strong, femora II with two short prolateral spines and a ventral retrolateral row of spines, femora III with single ventral row of spine, femora IV

with two ventral long spines not strong like those in the male, dorsally femora I-II are with distantly placed spines, patellae, tibiae and metatarsi profusely spinous, leg formula 1243. Palp creamish yellow with single dented claw, patellae with two long apical bristles, tibiae and tarsi covered with strong bristles, tibiae smaller than tarsi.

Table-1: Measurements of leg segments (in mm) of female *Lipocrea epeiroides*

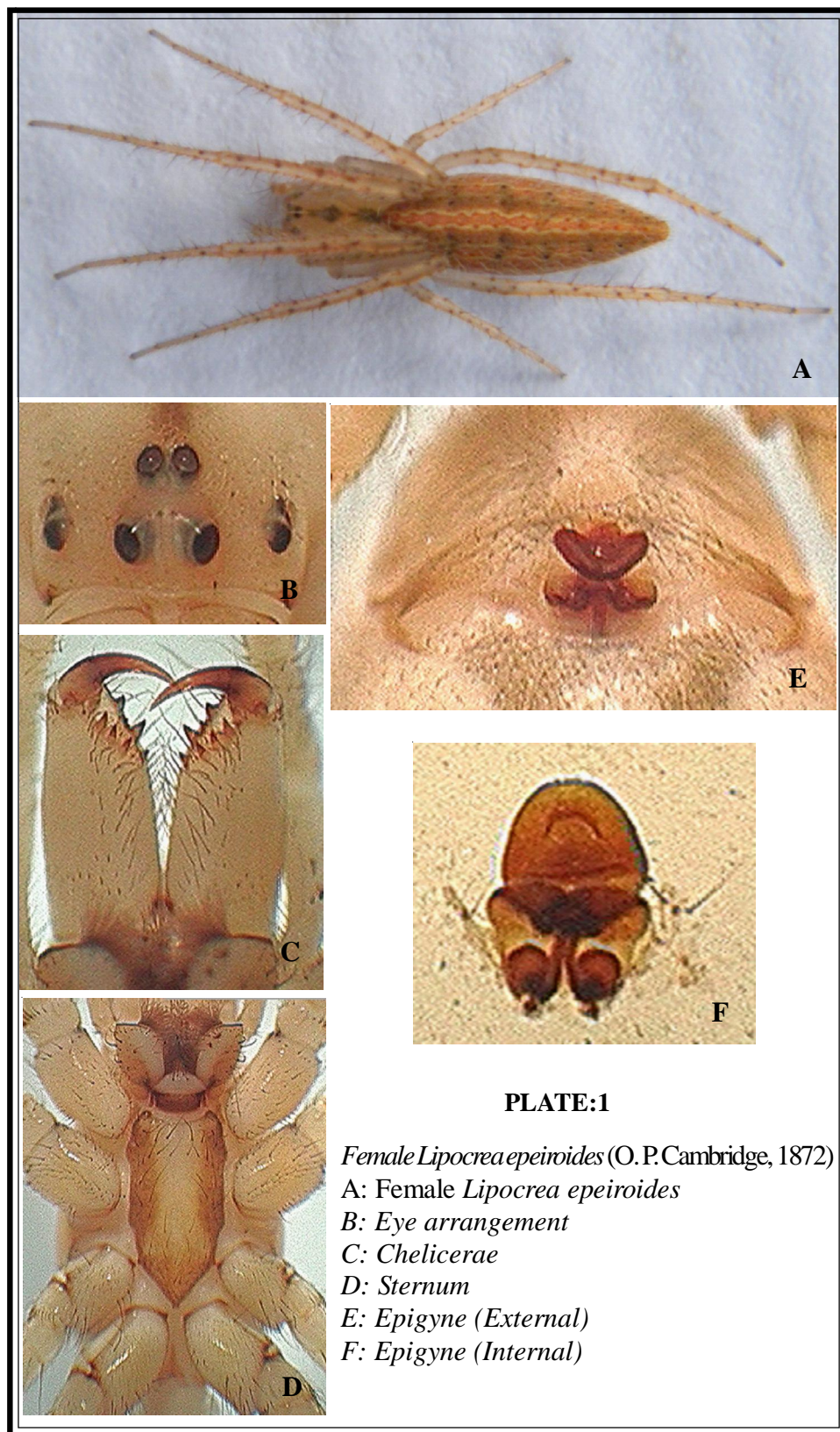
Leg	Coxa	Trochanter	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	0.80	0.40	2.84	1.03	3.43	3.56	1.13	13.19
II	0.73	0.34	2.82	1.05	3.27	3.19	1.16	12.56
III	0.52	0.25	2.06	0.56	1.40	1.54	0.83	7.16
IV	0.71	0.32	3.20	0.94	2.84	3.00	0.93	11.94

Abdomen: Elongated, reddish orange, pointed at both the ends, broader medially, dorsum covered with uniformly distributed strong setae and lateral and venter covered with smooth white hairs, anterior and posterior end provided with a bunch of hairs, provided with a midlongitudinal orange band with yellow wavy margins extended upto posterior end, besides two more longitudinal parallel, wavy, yellow margins runs posteriorly enclosing pairs of black dots inside. Venter with a midlongitudinal white broad patch surrounded by brown color border from epigastric furrow upto the spinnerets, three pairs of circular spots are present on this patch, third pair close to each other.

Epigynum: Epigynum wider than long in ventral view, brownish with broad, thick, rounded scape, bordered with thickly sclerotised raised rim having concavity medially; below scape, two funnel like plates present each with narrow rim nearly reaching to base of the scape and broad raised rim towards the apex, spermathecae circular, copulatory duct large and folded, fertilization duct small.

Description of male *Lipocrea epeiroides*: Total length 5.11 mm, cephalothorax 2.60 mm long, 1.88 mm wide, abdomen 2.65 mm long, 1.37 mm wide, sternum 1.04 mm long, 0.54 mm wide. Cephalothorax creamish yellow with a midlongitudinal gray band widened at the subposterior part of cephalic region, oval in shape, constricted anteriorly, covered with pubescence, fovea distinctly deep and longitudinal,

AME larger than PME and widely separated than PME, PME close to each other but distinctly separated, encircled by a black ring, PLE subequal in size, close to each other, almost touching, situated on a prominent tubercle, ocular area thickly covered with pubescence, MOQ longer than wide, wider anteriorly than posteriorly, forming trapezium, seven strong and long, upwardly directed macrosetae present, two just behind AME, one behind PME, two between AME and two behind LE.



Sternum yellowish, spear shaped, covered with hairs, fused with labium, lateral margins thickly sclerotized and pointed between intercoxal space. Labium as wide as long, pale brown with rounded pale distal margin, lateral proximal margin thickly sclerotized. Maxillae longer than wide, brown, promarginally pale provided with scopulae, maxillar surface covered with hairs and spines, retromargin anteriorly with a pointed tooth like process. Chelicerae yellowish with a prominent condyle, three subequal retromarginal teeth, four teeth promarginally having second smallest and third one largest.

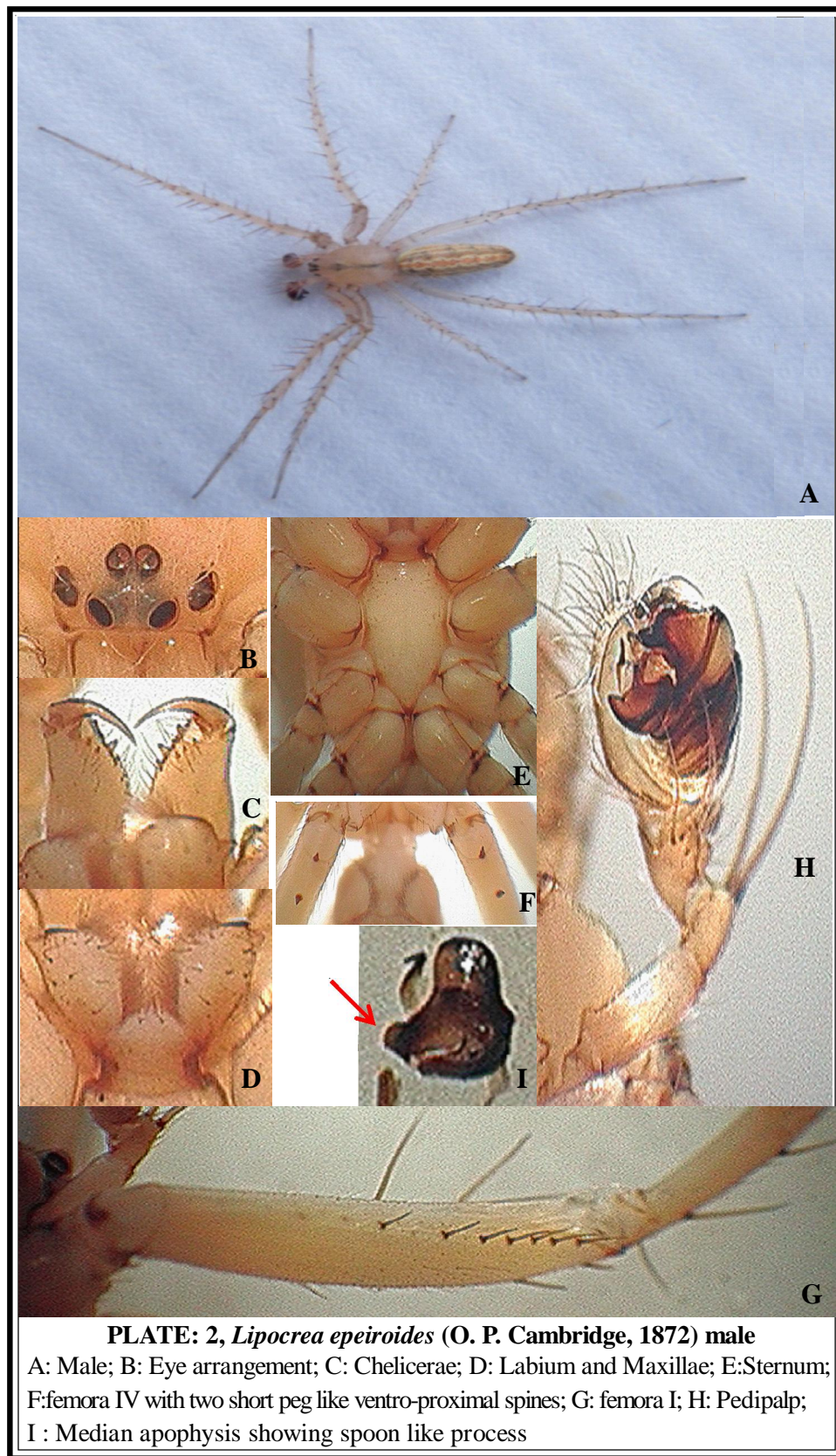
Legs long, slender, yellowish with strong distinct spine on patellae, tibiae and metatarsi, coxae IV with retomarginal tooth like process, femora I with two conspicuous long and strong prolateral spines and a ventral- retrolateral row of seven short and strong spines, with six dorsal spines in two rows, femora II with three prolateral, two retrolateral, a ventro- retrolateral row of delicate bristles and four dorsal spines in single row, femora III with no ventral spines, three prolateral, one retrolateral and provided with three dorsal spines in single row, femora IV with two distinct short peg like ventro-proximal spine, two prolateral, two retrolateral and three distantly placed dorsal spine in single row, metatarsi III – IV with short, distal prolateral spine that is absent on metatarsi I-II, leg formula 1243.

Table-2: Measurements of leg segments (in mm) of male *Lipocrea epeiroides*

Leg	Coxa	Trochanter	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	0.69	0.23	2.89	1.11	3.54	3.83	1.19	13.50
II	0.57	0.18	2.80	1.06	2.75	3.39	1.05	11.82
III	0.39	0.22	1.84	0.70	1.46	1.27	0.70	6.61
IV	0.52	0.25	2.89	0.82	2.64	2.81	0.83	10.80

Abdomen reddish orange or sometimes light greenish, elongate, slightly pointed at anterior and posterior end, broad medially, dorsum with a midlongitudinal orange colored band from anterior to posterior end with yellowish or pale colored wavy margins, two more wavy pale colored margins runs besides the median band enclosing distantly placed pairs of black spots, covered uniformly with long, thin, white hairs, venter of abdomen with a broad longitudinal white patch surrounded by brownish color border extends from epigastric furrow to just above spinnerets and three pairs of spherical brown spots encircled with light color margin, third subbasal pair of spot close to each other than others.

Pedipalp: Palp yellowish, femora constricted basally, provided with a basal tooth like sclerotized process from the inner side, visible in lateral view, patellae covered with soft white bristles and bears two apical distinctly long bristles, ventrally tibiae



axe like with anterior median notch, retrolateral truncate portion with a bunch of white hairs, dorsal anterior margin surrounded by long delicate white bristles, antero-prolateral portion distinctly chitinized, paracymbium peg-like, small, cymbium profusely covered with white, long bristles, median apophysis large with thick sclerotized margin projected basally with a spoon like process, bears mesal, sclerotized, finger like process, directed upward with bent hook like pointed tip, conductor large, dark blackish brown, with raised sclerotized edges, terminal apophysis long, transperant, sickled shaped, bent downwards, subterminal apophysis large with broad base, hidden behind terminal apophysis with sclerotized biforked tip; embolus thick and extend upto the tip of terminal apophysis.

The palp of *Lipocrea epeiroides* differs from that of *Larinia chloris* (Audouin, 1826) having male palp with large median apophysis with thick sclerotized margin projected basally with a spoon like process. It also bears bears mesal, sclerotized, finger like process (Kunt *et.al.*,2010), directed upward with bent hook like pointed tip.

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